

REMARKS

In response to the Office Action dated May 27, 2005, Applicants respectfully request reconsideration and withdrawal of the objections to the disclosure and rejections of the claims.

In response to the Examiner's request, the title has been amended to more explicitly reflect the subject matter of the pending claims. Likewise, the Abstract has been amended to remove the legal phraseology.

The drawings were objected to under 37 C.F.R. §1.83(a), as not showing the leadframe and non-singulated semiconductor devices. It is respectfully submitted that these elements are not positively claimed as components of the invention, *per se*. Rather, they relate to the intended use of the claimed apparatus, and establish parameters that determine structural features of the claimed elements. Specifically, claim 1 recites an apparatus "for supporting ... a leadframe formed with at least one row of non-singulated semiconductor devices, comprising" In other words, the claim is directed to the support apparatus, *per se*, and not the apparatus in combination with the leadframe having the semiconductor devices.

It is respectfully submitted that the drawings illustrate the positively claimed subject matter, *i.e.*, the support apparatus, and that 37 C.F.R. §1.83 does not require illustration of other subject matter that relates to the environment in which the apparatus is designed to be used. Reconsideration and withdrawal of the objection is therefore respectfully requested.

Claims 1-13 were rejected under the first paragraph of 35 U.S.C. §112. The rejection states that the specification fails to show how and where the leadframe is used, as well as how and where the non-singulated semiconductor devices are used.

As noted above, the leadframe and the non-singulated semiconductor devices are not claimed components of the invention. Rather, the claims are directed to an apparatus for supporting these components during testing. The specification clearly discloses the structure of the apparatus defined in the claims, as well as the manner in which it is used during testing. Accordingly, it is respectfully submitted that the specification complies with the first paragraph of 35 U.S.C. §112, as it provides an enabling disclosure of the *claimed* invention.

Claims 1-13 were objected to, on the grounds that it was not clear if the invention is drawn to an apparatus or a combination of elements of a system. As discussed previously, the claims are directed to the support apparatus, *per se*. The leadframe and semiconductor devices are not positively recited elements of the claim. The recitation of these elements in the claim is for the purpose of describing the intended use of the support apparatus, which in turn defines the structure of claimed features of the support apparatus, such as the groove, the gripping members and the locating pins. Reconsideration and withdrawal of the objection is respectfully requested.

Claims 1-5 and 8-13 were rejected under 35 U.S.C. §102, on the grounds that they were considered to be anticipated by the Tsurushima et al. patent (US 5,227,717). For the reasons presented below, it is respectfully submitted that the Tsurushima patent does not anticipate the subject matter of these claims. Since claims 6 and 7 were not rejected on the basis of prior art, it is understood that they have already been deemed to recite allowable subject matter.

The Office Action states that the Tsurushima patent discloses an apparatus for supporting, during a testing operation, a leadframe 99. It is respectfully submitted

that a person of ordinary skill in the art would not interpret the patent as disclosing such. First, the structure 99 is not a "leadframe," as that term is commonly understood in the art. "Leadframe" is a specific term of art in the semiconductor industry, that refers to a metallic frame containing leads and a base to which an unpackaged integrated circuit is attached. After encapsulation, the outer part of the frame is cut away. See, for example, the accompanying definition from the McGraw-Hill Electronics Dictionary. The frame 99 of the Tsurushima reference does not fall within this definition. In particular, it does not constitute a structure on which a semiconductor die is mounted. Rather, as illustrated in Figures 4 and 6, it comprises the peripheral structure of the tray 24 that engages tapered rotors 96.

Second, the tray 24 does not function to *support* the frame 99. Rather, the frame comprises a *component* of the tray itself.

Furthermore, the tray 24 of the Tsurushima patent does not relate to supporting a leadframe formed with at least one row of non-singulated semiconductor devices. Instead, it is designed to support a plurality of individual, *singulated* semiconductor packages 44. Each package 44 is *separately* supported by a single carrier 22. In contrast, claim 1 recites that the support member is formed with a groove that is configured to support a row of non-singulated semiconductor devices. The reference does not disclose a groove that is configured in such a manner.

As another distinguishing feature, claim 1 recites that the leadframe support member is formed such that, in use, leads extending from the semiconductor devices lie on a surface of the support member. In the arrangement of the Tsurushima patent, each singulated semiconductor package 44 is received within a seat 100

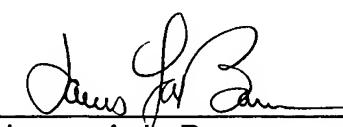
(Figure 5B). While the body 44 of the package is supported, the leads 46 extending therefrom are located within slots 102 in the carrier 22. This arrangement is designed for the reception of a test contactor through the slots 102, to contact the device leads 46 (column 9, lines 20-26). As such, the tray 24 and carrier 22 are not designed so that the leads 46 lie on the surface of the support member, i.e., the tray, as recited in claim 1.

For at least the foregoing reasons, therefore, it is respectfully submitted, that the subject matter of claim 1 is not anticipated by the Tsurushima patent. Since all other pending claims depend from claim 1, either directly or indirectly, they likewise are not anticipated by the reference.

Reconsideration and withdrawal of the rejections and objections, and allowance of all pending claims is respectfully submitted.

Respectfully submitted,

BUCHANAN INGERSOLL PC

Date: August 29, 2005
By: 

James A. LaBarre
Registration No. 28,632

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620